

ON TO 2050 COMPREHENSIVE REGIONAL PLAN

Draft
for public
comment

PROSPERITY

This PDF only contains text for the chapter named above. Please see www.cmap.illinois.gov/onto2050 for the full draft plan text.

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An online version of the ON TO 2050 Draft for Public Comment as well as a downloadable PDF of the plan and its technical appendices can be found at www.cmap.illinois.gov/onto2050. Design will change for the final release of ON TO 2050 in October 2018.

PROSPERITY

Growing the economy

Developed and emerging economies around the world have been transformed in recent years by new technologies, advances in freight and logistics, and evolving consumer demand. These trends and climate change will increasingly shape global commerce. Metropolitan Chicago is well-positioned not just to withstand these complex factors but to seize new opportunities due to our strengths among a range of industries and our diverse and skilled population. The region is also endowed with the preeminent North American freight hub, active and engaged civic leadership, and world-class institutions of education and research.

[GRAPHIC TO COME: An illustrated graphic will demonstrate the connections among global competition, regional economic development, and local prosperity.]

ON TO 2050 seeks to improve our region's ability to adapt in a changing global economy and to thrive by reducing economic inequality. Metropolitan Chicago needs to improve opportunities for employment and robust economic output while taking deliberate steps to ensure prosperity for all. These goals -- economic opportunity and growth -- are inextricably linked. As our prolonged slow growth continues to lag behind peer regions, lower- and moderate-income residents are leaving to seek economic opportunity elsewhere. Sustaining broad economic growth requires improving the region's business environment to enable industries and workers alike to compete globally and prosper locally.

While healthy competition within the region has its benefits, emerging opportunities and challenges increasingly require a regional approach for economic and workforce development to capitalize on our distinctive assets. Human capital -- among the most important determinants of regional economic vitality -- transcends jurisdictional boundaries. Amid stagnant growth in the labor force, institutions of higher education and research help to retain and develop the region's innovative talent. Business expansion depends on reaching markets around the world with goods and services that can compete successfully in the global economy.

ON TO 2050, as a whole, seeks to ensure metropolitan Chicago's future economic success. The recommendations in this chapter address the initial steps in workforce and economic development that are necessary to achieve broad prosperity. Investments in such activities must be inclusive, prioritized, and responsive to market shifts and economic outcomes. Metropolitan Chicago's lagging growth underscores the need to organize currently diffuse policies and programs and, when appropriate, to align local objectives with regional goals. It also accentuates the need for widespread, coordinated actions rooted in the needs of particular communities and industries. Several strategies seek to ensure that residents can access opportunity and thrive in the workforce. While these recommendations are geared toward addressing needs of the working-age population, the importance of equitable access to high quality pre-school through secondary education cannot be overstated.



This chapter describes recommendations to promote:

1. **Inclusive growth** by broadening opportunities for innovation and promoting pathways for upward economic mobility.
2. **Resilience** by taking a regional approach to economic development and better preparing the workforce for future economic shifts.
3. **Prioritized investment** in coordinated economic and workforce development activities.

Robust economic growth that reduces inequality

The region is endowed with extensive assets, including its people, industries, educational and research institutions, infrastructure, and location. Yet, the region has experienced prolonged slow growth. During 2001-16, overall economic productivity here increased on average just 0.8 percent annually, coupled with just 0.2 percent annual employment growth.⁵⁷ Across numerous metrics, the region has consistently lagged behind peers and national averages. Advancing the region's economic goals requires action now to bolster a range of private and public initiatives already underway on a regional level. Moreover, economic opportunity and prosperity remain out of reach for many residents, particularly for black and Hispanic residents. New research underscores the role of economic inequality in impeding metropolitan Chicago's ability to start and sustain stronger growth. In short, state and local governments, the private sector, and educators need to pursue continuous improvements to excel in a modern economy. Smart, inclusive, coordinated strategies can ensure that metropolitan Chicago remains a destination for business activity, innovation and invention, and diverse human capital.

Pursue regional economic development

Advancements in information, transportation, and manufacturing technology are opening new market opportunities for the region's diverse workforce and industries. Nonetheless, global trends are interacting with concerning regional trends in demographics and fiscal uncertainty to constrain economic growth for metropolitan Chicago. Economic data reveal prolonged slow growth,⁵⁸ a widening gap in performance between the region and its peers, and a significant share of residents with limited economic opportunities.⁵⁹ Given today's economic realities, metropolitan Chicago must reassess conventional tactics and better coordinate strategies to help firms and industries compete globally.

⁵⁷ Chicago Metropolitan Agency for Planning analysis of Bureau of Economic Analysis and Economic Modeling Specialists International data.

⁵⁸ Chicago Metropolitan Agency for Planning ON TO 2050 snapshot, "Regional Economy and Clusters: Building on Our Strengths," 2017, <http://www.cmap.illinois.gov/onto2050/snapshot-reports/economic-clusters>.

⁵⁹ Chicago Metropolitan Agency for Planning ON TO 2050 strategy paper, "Inclusive Growth," 2017, <http://www.cmap.illinois.gov/onto2050/strategy-papers/inclusive-growth>.



[GRAPHIC TO COME: A series of data charts will provide information on the Chicago region's of economic performance over time.]

In an evolving global economy, metropolitan areas are the unmatched engines of economic growth. In 2016, metropolitan economies generated more than 80 percent of the world's output⁶⁰ and nearly 90 percent in the U.S.⁶¹ Yet the Chicago region's performance -- across productivity, employment, wages, opportunity, innovation, and other indicators -- remains mixed and in some cases lackluster.⁶² Since 2001, the region has consistently lagged behind peers and the national average in overall economic and productivity growth, and its growth during 2009-16 ranked just 67th among the 100 largest U.S. metropolitan economies.⁶³ While the region's industries have made significant strides in responding to global competition, research provides new insights into the forces -- such as persistent economic inequality -- that are hampering metropolitan Chicago's ability to start and sustain stronger growth. Catching up to the pack requires a coalition of political, civic, and business leaders to implement strategies that will raise the region's global competitiveness and economic vitality.

Many factors contribute to a region's success, like the quality of its infrastructure, workforce, diverse and advanced industries, civic leadership, and institutions of education and research. These assets are at the core of our competitive advantage as a global economic center and serve as the foundation of future economic opportunity and growth. Today, people, goods, services, knowledge, and capital move across borders with growing frequency. Increasingly complex supply chains extend globally, and some employers can more easily access a worldwide workforce. Strategies to achieve the region's economic goals must be similarly nimble and responsive in a changing global economy.

Despite our economy's metropolitan breadth, many approaches and tools to support economic development remain siloed to local jurisdictions, limiting the potential of strategies for broad economic growth.⁶⁴ These tactics often neglect the position of individual communities in a larger economic landscape, with core assets flowing across state borders in a Midwestern megaregion. Coordination across jurisdictions can enhance traditional economic development services like business expansion, retention, and attraction. Improved analytical techniques and planning tools can supplement local knowledge, develop shared opportunities, and

⁶⁰ Jesus Leal Trujillo and Joseph Parilla, "Redefining Global cities: The seven types of global metro economies," Brookings Institution (2016), https://www.brookings.edu/wp-content/uploads/2016/09/metro_20160928_gcitypes.pdf.

⁶¹ Chicago Metropolitan Agency for Planning analysis of Bureau of Economic Analysis data on GDP per metropolitan area, 1-year estimates, 2016.

⁶² Chicago Metropolitan Agency for Planning Regional Economic Indicators website, 2017, <http://www.cmap.illinois.gov/programs/regional-economic-indicators/trends>.

⁶³ Chicago Metropolitan Agency for Planning analysis of U.S. Bureau of Economic Analysis data.

⁶⁴ Organization for Economic Co-operation and Development, *OECD Territorial Reviews: The Chicago Tri-State Metropolitan Area, United States*, 2012, <http://www.oecd.org/unitedstates/oecdterritorialreviewsthechicagotri-statemetropolitanarea.htm>.



complement competitive interests among the region’s counties and municipalities. Ideally, these efforts would inform local and state policy reform. With sustained engagement, the State of Illinois could play a more effective role in leveraging its resources to support economic development that implements regional goals.

[GRAPHIC TO COME: An illustrated graphic will demonstrate an array of economic development activities that can be enhanced by regional coordination.]

Regional leaders have taken some steps to better coordinate and collaborate around strategies to grow the region’s economy. Launched in January 2018, the CRGC is an important first step toward collaboration among the county board chairs of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will counties and the Deputy Mayor of City of Chicago.⁶⁵ The organization’s initial scope includes a small staff, board of directors with region-wide representation from diverse businesses and economic development professionals, and financial commitments for the first three years. CRGC will need to identify initial opportunities for impactful work and to secure sustainable, long-term funding as a basis for continued multijurisdictional collaboration.

The following describes strategies and associated actions to implement this recommendation.

Support development of an entity with the mandate and resources to implement a regional economic growth strategy

Overcoming metropolitan Chicago’s prolonged slow growth and uneven access to opportunity will require a shared vision for the regional economy. Initial success under the CRGC can help demonstrate the benefits of collaboration among the region’s political and economic development leaders. With sustained private sector engagement and institutional support, CRGC can play a critical role in focusing economic development activities and marshaling resources to address issues that cut across the region’s diverse industries and communities. Such initiatives include improving freight movement in the region, integrating data and information systems for rigorous market analysis, and assembling support for prioritized, multijurisdictional infrastructure investments. Regional coordination among economic development organizations (EDOs) should especially emphasize cluster-oriented strategies by convening business leaders and partners like anchor institutions to address shared, sector-specific challenges. This strategy also appears in the *Governance* chapter, under the recommendation to *Use collaborative leadership to address regional challenges*.

CMAP and partners should continue to support CRGC’s initial endeavors by assisting in convening regional stakeholders, providing research and data, and securing financial support, as appropriate.

⁶⁵ Cook County, “Chicago Regional Growth Initiatives,” 2013, <https://www.cookcountyil.gov/content/regional-initiatives>.

County and municipal EDOs should develop a shared vision for the regional economy that articulates our strongest economic assets and competitive advantages in support of regional marketing and branding. CRGC or similar entity can help to facilitate related analysis and strategy development.

CRGC or a similar entity should help county and municipal officials pursue shared goals across jurisdictional boundaries that complement their respective strengths and competitive advantages.

CMAAP should continue to research and articulate the benefits of intergovernmental collaboration through responsive data and analysis on the regional economy's performance.

Expand global market reach

The majority of economic growth is occurring abroad and opening new market opportunities that can support prosperity at home. Like peer regions, metropolitan Chicago has relied on exports and foreign investment to help sharpen its economic competitiveness since the 2007-09 recession.⁶⁶ The region's manufacturing exports increased by nearly 37 percent during 2005-16, beating growth rates in New York and Los Angeles.⁶⁷ Yet many small- and medium-sized businesses here do not currently export their specialized or high quality products and services. Foreign direct investment can also fortify the region's connections to global markets. Coordinated efforts have already yielded positive results in expanding, retaining, and attracting such investments, which improve businesses' access to capital and global markets.⁶⁸

In responding to the pressures of global competition, the Chicago region must enhance its credibility and saliency as a center for international business development. Research has found that racial and ethnic diversity and openness to immigrants strongly contribute to regional growth in employment and productivity by broadening the talent pool available to businesses.⁶⁹ Metropolitan Chicago should leverage not only its diverse industry mix and institutions, but also its diverse residents who have formal and informal connections worldwide.

CRGC or a similar entity should facilitate ongoing analysis and strategy development for reaching global markets that builds consensus among the region's many stakeholders.

⁶⁶ Brad McDearman and Ryan Donahue, "The 10 Lessons from Global Trade and Investment Planning in U.S. Metro Areas," Brookings Institution (2015), <https://www.brookings.edu/wp-content/uploads/2016/06/TenLessons.pdf>.

⁶⁷ Chicago Metropolitan Agency for Planning Regional Economic Indicators website, 2017, <http://www.cmap.illinois.gov/economy/regional-economic-indicators/trends/>.

⁶⁸ The Chicago Council on Global Affairs, "Foreign Direct Investment: Globalizing Chicago's Economic Development Plans," (2012): 34.

⁶⁹ Randall Eberts, George Erickcek, and Jack Kleinhenz, "Dashboard Indicators for the Northeast Ohio Economy: Prepared for the Fund for Our Economic Future," *Federal Reserve Bank of Cleveland Working Paper* 20 (2006).



CRGC or a similar entity should support the development of a comprehensive foreign trade and investment strategy for the region, including leveraging existing export relationships and positioning the region strategically for foreign direct investments, mergers, and acquisitions.

CRGC or a similar entity -- in partnership with economic development organizations, business associations, and chambers of commerce -- should coordinate efforts to market the region and convey its dynamic economy, infrastructure, and institutional assets; diverse and skilled workforce; and other assets.

CRGC or a similar entity -- in partnership with counties and municipalities -- should expand technical assistance and other supports for export activity by small- and medium-sized businesses, such as assistance in navigating the customs process, access to global customers, and export financing.

The State of Illinois should collaborate with regional stakeholders to implement a strategy for the region's economic growth

The State of Illinois and metropolitan Chicago can do more to align economic development efforts across units of government, consistent with rigorous market analysis.⁷⁰ In 2013, the Illinois General Assembly passed a law requiring the Department of Commerce and Economic Opportunity (DCEO) to develop a statewide, five-year strategic plan for economic development that leverages and enhances existing programs and incentives.⁷¹ The initial plan was developed with minimal engagement of stakeholders from our region despite its outsized role in the state's economy. Meaningful engagement of local leaders from across the state could improve future planning processes and implementation. Ongoing strategic planning can identify where stakeholders should focus public investments based on the region's priorities, unique assets, and complex challenges. Moreover, the plan and subsequent implementation could be strengthened by differentiating supports to the very diverse economies across Illinois. Emerging challenges and opportunities may warrant new or expanded economic development activities. However, the State should work to alleviate and reduce challenges that administrative processes and regulatory actions can address. Examples may include regulatory barriers, fiscal and tax policies, permitting processes, education and workforce development, and physical infrastructure. Activities should be tailored as appropriate to sustain a more stable and reliable environment for business.

⁷⁰ Chicago Metropolitan Agency for Planning report, "Reorienting State and Regional Economic Development: Challenges and Opportunities for Metropolitan Chicago," 2017, <http://www.cmap.illinois.gov/programs/innovation/economic-development>.

⁷¹ Illinois General Assembly, Public Act 98-0397.



The State of Illinois should identify and plan for the distinct needs of its regional economies, allocating resources and developing policies to reflect their unique scale, opportunities, and challenges.

The State of Illinois should coordinate the delivery of its direct services, programs, and financial assistance for economic development with regional organizations and stakeholders.

The State of Illinois should pursue transparent, accountable practices that ensure investments for economic development produce improved results.

The State of Illinois and regional organizations should seek opportunities to collaborate for economic development across state boundaries, as appropriate.

The State of Illinois must provide a stable fiscal environment to improve the overall business climate

At every level, government should support a healthy economy by investing in public goods, ensuring fiscal stability, and avoiding uncertainty for businesses and investors. Yet recurring gridlock in state government demonstrates that Illinois has not yet found political consensus on how to address significant unfunded liabilities or modernize the tax code to maintain current services. Persistent state and local fiscal uncertainty undermines metropolitan Chicago's business environment. Business investment and development strategies can take several years to implement, and firms desire stable, predictable tax rates and government services that enable them to forecast operational costs. Over time, the State of Illinois' fiscal condition can erode the advantages of operating in the Chicago region.

State-level fiscal concerns can also negatively affect planning and revenues at the local level. Local governments may not be able to rely on federal and state revenues for future capital investment, economic development, and other activities.⁷² The State of Illinois should implement fiscally sustainable practices to ensure a stable business environment and guarantee the reliability of state support for local governments, education and training providers, transit agencies, and nonprofit service providers.

Support the region's traded clusters

An industry cluster is a group of firms, related stakeholders, and supportive institutions that gain productive advantages from close geographic proximity and related economies of scale.⁷³ As groups of related industries grow and develop, clustering can help lower business costs and increase the extent and benefits of specialization. Deeper labor pools, better access to customers

⁷² Chicago Metropolitan Agency for Planning Policy Update, "Revenue trends for transportation funding in the Chicago region," http://www.cmap.illinois.gov/updates/all/-/asset_publisher/UIMfSLnFfMB6/content/revenue-trends-for-transportation-funding-in-the-chicago-region.

⁷³ Michael Porter, "Clusters and the New Economics of Competition," *Harvard Business Review* (1998).



and suppliers, knowledge spillovers -- these and other advantages are derived from an environment of balanced competition and collaboration. As a result, specialized industry clusters embedded in metropolitan regions worldwide spur significant economic activity that forges broad economic opportunity and growth.⁷⁴ Even in uncertain economic conditions, the competitive advantages of clusters effectively make the case for why a business would choose or need to operate in the Chicago region. A mounting body of research shows that these efficiencies boost a region's job growth, wages, patenting, and startup activity.⁷⁵ In particular, traded clusters -- those selling products and services in markets outside of the region -- have an outsized potential to grow our economy. Traded clusters account for just one-third of the region's employment but half its income and demonstrate higher rates of productivity, wages, and patenting.⁷⁶

[GRAPHIC TO COME: An illustration will provide information on traded industry clusters and the benefits of cluster initiatives.]

The Chicago region realizes significant economic returns through its diverse areas of strength, with employment concentrations above the national average in the majority of traded clusters. Yet the changing global economy has led to declining employment in almost all traded clusters since 2001.⁷⁷ While many factors contribute to industry trends over time, differences between trends here and elsewhere in the U.S. illustrate our region's relative competitiveness. For example, only a small handful of metropolitan Chicago's traded clusters grew regional employment at or ahead of national averages, most notably Business Services and Medical Devices. The performance of other relatively large clusters has been more mixed, pairing declining employment totals with continued specialization in the national context. Such clusters include Financial Services, Food Processing and Manufacturing, and Metal Manufacturing.

[GRAPHIC TO COME: A series of data charts will show change in metropolitan Chicago's traded industry clusters between 2001-2017.]

Economic realities are making it increasingly essential that businesses and related public or private institutions work together to support further cluster growth and employment concentration in the region. Regional efforts can address shared, sector-specific challenges like the steepening competition from globalization and the accelerating pace of technological and

⁷⁴ Stuart S Rosenthal and William C. Strange, "Evidence on the nature and sources of agglomeration economies," *Handbook of regional and urban economics* 4 (2004): 2119-2171.

⁷⁵ Christian Ketels, "Recent research on competitiveness and clusters: what are the implications for regional policy?" *Cambridge Journal of Regions, Economy and Society* 6, no. 2 (2013).

⁷⁶ Chicago Metropolitan Agency for Planning ON TO 2050 snapshot, "Regional Economy and Clusters: Building on Our Strengths," 2017, <http://www.cmap.illinois.gov/onto2050/snapshot-reports/economic-clusters>.

⁷⁷ Chicago Metropolitan Agency for Planning ON TO 2050 snapshot, "Regional Economy and Clusters: Building on Our Strengths," 2017, <http://www.cmap.illinois.gov/onto2050/snapshot-reports/economic-clusters>.



market changes. Cooperation can also support multiple planning goals like organizing employers and social service providers to implement a regional career pathway system.

The following describes strategies and associated actions to implement this recommendation.

Convene industry leadership and support coordination of cluster initiatives

Clusters occur naturally in the economy as related businesses and institutions enhance productivity through advantages of proximity and interconnectivity. To build their own productivity and resilience, many regions have begun forming cluster initiatives that more deliberately bring together resources to tackle common concerns. Formal initiatives, directed by the needs and interests of the area's businesses, can provide comprehensive support around the accelerated growth of a specific cluster. Such initiatives include the [Chicago Metro Metals Consortium](#) and the [Chicagoland Food and Beverage Network](#). Cluster support can take many forms, such as enhancing educational and training offerings or addressing specialized infrastructure needs. As a result, strategies depend on the unique contexts in which industries operate at regional and sub-regional levels. Private sector leaders -- in partnership with public officials -- have a critical role to play in guiding policy and planning for cluster-oriented economic development. For traded clusters in particular, initiatives should create opportunities for businesses to expand into markets nationally and internationally.

Conduct additional analysis of the region's globally traded clusters

Successful economic development depends on improving the region's competitiveness as a place to do business by increasing the productivity of regional economic assets, including existing firms and workers. Clusters provide a framework for better organizing the many public policies and investments already directed toward economic opportunity and growth. Doing so requires a more detailed understanding of specialized clusters present in northeastern Illinois, and of their unique, often-multijurisdictional needs. Building on momentum from the private sector, this research should aim to serve as a basis for convening industry leadership and identifying initial opportunities for high-impact, cross-cutting collaboration.

CMAP and research partners should continue to analyze globally traded clusters and research the unique transportation, land use, innovation, and human capital needs of specialized clusters.

CMAP and research partners should provide guidance to local partners on best practices for zoning, development, transportation investments, and other tactics that support traded cluster growth.

CMAP and research partners should explore the use of innovative analytical techniques and planning tools for traded cluster-oriented economic development in local and sub-regional plans.



Pursue inclusive growth by prioritizing clusters that support regional economic opportunity

Inclusive economic growth can improve wages and living standards for the average resident and achieve high participation in a skilled workforce. Yet proponents of cluster-oriented economic development and inclusive growth too often operate in parallel without acknowledging their joint interests. Due to their economic benefits, cluster initiatives can generate economic activity that improves outcomes in underserved or lower income areas, and an emphasis on decreasing inequality could further boost productivity and competitiveness. Likewise, a regional approach to prioritizing cluster support can decrease inequality by raising the demand for labor⁷⁸ and increase the effects of policies aimed to spread opportunity.⁷⁹ Economic development organizations and partners should take an active role in cluster initiatives, in part to ensure they implement strategies to support inclusive growth. CMAP and partners can make initial efforts to identify and prioritize support to clusters that promote equitable growth in different and diverse parts of the region.

Analyze the planning needs and opportunities of local clusters

Cluster-oriented economic development tends to focus on traded clusters because they serve national and global markets and have significantly higher levels of productivity, wages, and patenting.⁸⁰ Some research has also begun to explore the role and needs of industry clusters that serve local businesses and residents. These local clusters provide the economic foundations that businesses in traded clusters rely on to operate. For example, such clusters provide most local healthcare services, education and training, utilities, industrial and vehicle repair services, and local commercial and personal services. These clusters tend to appear in metropolitan areas across the U.S. at concentration levels proportionate to a region's population and the traded businesses they service.⁸¹

Both traded and local clusters have discrete functions in the regional economy and distinct infrastructure, land use, and employment needs.⁸² Local business-to-business clusters, such as those selling industrial products and commercial services, depend on a transportation system that moves goods efficiently within the region. They also tend to boast higher levels of minority

⁷⁸ Manuel Pastor, Peter Dreier, Eugene Grigsby III, and Marta López-Garza, "Growing Together: Linking Regional and Community Development in a Changing Economy," Shelterforce (1998): 2.

⁷⁹ Raj Chetty, David Grusky, Maximillian Hell, Nathaniel Hendren, Robert Manduca, and Jimmy Narang, "The Fading American Dream: Trends in Absolute Income Mobility Since 1940 (Non-Technical Summary)" (2016) http://www.equality-of-opportunity.org/assets/documents/abs_mobility_summary.pdf.

⁸⁰ Chicago Metropolitan Agency for Planning ON TO 2050 snapshot, "Regional Economy and Clusters: Building on Our Strengths," 2017, <http://www.cmap.illinois.gov/onto2050/snapshot-reports/economic-clusters>.

⁸¹ Mercedes Delgado, Richard Bryden, Samantha Zyontz, "Categorization of Traded and Local Industries in the U.S. Economy," Cluster Mapping Methodology, 2014, <http://clustermapping.us/content/cluster-mapping-methodology>.

⁸² Chicago Metropolitan Agency for Planning Policy Update, "The Chicago region's local industry clusters," October 2015, http://www.cmap.illinois.gov/updates/all/-/asset_publisher/UIMfSLnFfMB6/content/the-chicago-region-s-local-industry-clusters.



ownership and are well-represented in underserved or lower income areas.⁸³ Additional cluster-oriented strategies -- such as opening up institutional and corporate procurement chains to a more diverse set of suppliers -- can reflect the broad set of opportunities within local clusters. Further analysis of the region's local industry clusters will help formulate plans to address their challenges and opportunities.

Analyze and plan for the human capital needs of clusters

Many of metropolitan Chicago's clusters first emerged based on location advantages unique to the region like its central location in the agricultural and industrial Midwest, strong access to a variety of resources, and dense freight infrastructure.⁸⁴ These remain some of the region's strongest competitive advantages. Today, a skilled and adaptable workforce is increasingly important to sustaining and growing the region's traded clusters. Their continued competitiveness will require coordinated, demand-driven approaches to education and workforce investments. Partnerships between the private and public sectors can help align training programs and hiring practices to ensure clusters have the talent to meet industry shifts.

Human capital is critical to improving the productivity and growth of each cluster, as well as the region as a whole. The value of deep talent pools extend beyond individual firms, as the exchange of ideas within a cluster contributes to higher levels of innovation and productivity. To capitalize fully on the region's human capital, public and private institutions should continue to foster specialized networks that lead to knowledge spillovers and increase opportunities for innovation. These efforts will require employers to form stronger partnerships with the region's universities and other institutions of higher education and research.

Cluster organizations, business associations, chambers of commerce, and other industry groups should prioritize strategies that support the accumulation of human capital in the region, such as cooperation among firms and interaction with education and research institutions.

Cluster organizations, business associations, chambers of commerce, and other industry groups should work with workforce partners to connect priority populations with supportive services that enable better access to education and employment opportunities.

Adult education and workforce training providers -- with the support of industry -- should coordinate training programs.

⁸³ Jonathan Holifield, Adam Kamins, Teresa Lynch, "Inclusive clusters," *Economic Development Journal* 11,4 (2012), http://masseconomics.com/wp-content/uploads/2013/02/Inclusive_Clusters.pdf. See also *Executive Summary: Linking Regional Economic Clusters with Target Urban Places*, conducted in partnership by Mass Economics, RW Ventures, Bookman, Capraro Associates, and Jones Lang LaSalle.

⁸⁴ Thomas Brenner and André Mühlig, "Factors and Mechanisms Causing the Emergence of Local Industrial Clusters: A Summary of 159 Cases," *Regional Studies* 47, 4 (2013), 480-507.



CMAP, cluster organizations, and regional EDOs should assist in the articulation of career pathways in key traded clusters.

CMAP should provide data and analysis on job market dynamics in traded clusters.

Leverage existing resources, relationships, and institutions to support industry innovators

When complementary firms operate in close proximity, frequent interactions on a variety of levels prompt knowledge spillovers as workers and firms learn from one another without incurring high costs. For example, dense supply chains allow businesses to work directly with their suppliers to customize and improve the inputs required to pursue new ideas. Firms in a cluster are thus better poised to anticipate trends and to adapt their operations by implementing innovations. Cluster-oriented strategies can help spur innovative activity by leveraging existing assets to support new-to-market or new-to-firm innovations. With an educated and experienced workforce, metropolitan Chicago's traded clusters increasingly compete by offering high value-added, customized, or made-on-demand products and services to a growing global customer base. For businesses to maintain a competitive advantage, the region must commit to investing in new innovations and partnerships that keep our economy at the forefront of such industry trends. Various stakeholders in any given cluster have the capacity to form partnerships that facilitate such idea exchange.

Economic development organizations should develop tools to support and foster dense, specialized networks for sourcing supplies, talent, customers, early-stage financing, ideas, services, and other business inputs.

CRGC or a similar entity -- in partnership with local EDOs -- should lead efforts to connect regional businesses to their respective innovation ecosystems and assist the dissemination of new technologies and processes.

CRGC, economic development organizations, business associations, and chambers of commerce should provide technical assistance to regional businesses on implementing new advances and reaching global markets.

Federal and state economic development agencies should continue to provide resources and expand support for regional cluster-oriented strategies.

Prioritize pathways for upward economic mobility

Barriers that impede residents from fully participating in the regional economy undercut metropolitan Chicago's primary source of growth -- its human capital. Numerous measures of economic well-being by race and ethnicity show how the region falls short of ensuring equitable



opportunity for all residents, and thus falls short of performing to its full potential.⁸⁵ Black and Hispanic residents in particular experience persistent disparities in educational attainment, employment, household income, and other indicators. Over time, these challenges limit the pace and durability of the region's economic growth, while also impeding efforts to reduce poverty or create opportunity.

[GRAPHIC TO COME: A series of data charts will provide information on persistent disparities in economic outcomes among metropolitan Chicago's residents by race/ethnicity.]

Racial and economic inclusion is integral to our continued growth and development. Research increasingly demonstrates the connection between reducing racial inequality and achieving stronger and more sustained economic growth. The International Monetary Fund has found that lowering income inequality in a region by 10 percent lengthens periods of growth by 50 percent.⁸⁶ Apart from the need for a skilled workforce, the Federal Reserve Bank of Cleveland has found that growth in regional productivity depends most on ethnic diversity, racial inclusion, minority-owned businesses, and low levels of income inequality.⁸⁷ In contrast, persistent inequality undermines a community's resilience in the face of uncertain future economic shifts. During 2006-10, income inequality was one of the most effective ways of predicting a county's risk of entering into recession,⁸⁸ and recent research shows that higher levels of wealth inequality can increase the severity of a recession.⁸⁹

Rates of labor force participation among the region's black residents during 2005-16 were at least five percentage points below any other group.⁹⁰ Metropolitan Chicago had nearly 150,000 young adults ages 16-24 years (12.1 percent) disconnected from both work and school in 2015, including 22.9 percent of young black residents.⁹¹ Many of these young adults have a high school diploma but require substantial remedial education, as well as options to intersperse learning and income. As skills demand evolves, low graduation rates among low-income and entry-level workers undermine training programs that could help them to enter and remain in

⁸⁵ Chicago Metropolitan Agency for Planning ON TO 2050 strategy paper, "Inclusive Growth," 2017, <http://www.cmap.illinois.gov/onto2050/strategy-papers/inclusive-growth>.

⁸⁶ Andrew Berg and Jonathan Ostry, "Inequality and Unsustainable Growth: Two Sides of the Same Coin?" *International Monetary Fund Staff Discussion Note* (2011). DOI: <http://dx.doi.org/10.5089/9781463926564.006>.

⁸⁷ Randall Eberts, George Erickcek, and Jack Kleinhenz, "Dashboard Indicators for the Northeast Ohio Economy: Prepared for the Fund for Our Economic Future," *Federal Reserve Bank of Cleveland Working Paper* (2006):20.

⁸⁸ Paul Lewin, Philip Watson, and Anna Brown, "Surviving the Great Recession: the influence of income inequality in US urban counties," *Regional Studies* (2017): 1-13.

⁸⁹ Dirk Krueger, Kurt Mitman, and Fabrizio Perri, 2016, "Macroeconomics and household heterogeneity," in *Handbook of Macroeconomics*, John B. Taylor and Harald Uhlig (eds.), Vol. 2, Amsterdam: Elsevier B.V. / North-Holland, pp. 843–921.

⁹⁰ Chicago Metropolitan Agency for Planning analysis of American Community Survey data, 2005-16.

⁹¹ Sarah Burd-Sharps, Kristen Lewis, Rupsha Basu, Rebecca Gluskin, Laura Laderman, and Marina Recio, *Promising Gains, Persistent Gaps: Youth Disconnection in America*. (Measure of America of the Social Science Research Council, 2017), <http://www.measureofamerica.org/youth-disconnection-2017/>.



the workforce.⁹² At the same time, average real U.S. annual wages for those with a high school diploma have not increased since 1970, even as costs to participate in the economy like childcare and post-secondary education have risen.⁹³

As both inequality and global economic shifts play out, how individuals relate to the labor market has become more complicated. Entry-level requirements have increased, and workers must increasingly seek out and pay for more post-secondary training before entering the workforce, in addition to continual training throughout their career to remain competitive.⁹⁴ In 2016, for the first time, workers with a Bachelor's degree or higher made up a larger proportion of the workforce (36 percent) than workers with a high school diploma or less (34 percent).⁹⁵ Yet the qualifications listed in a job posting do not necessarily reflect the actual skills and education needed to perform the related tasks. Inflated job requirements can contribute to large pools of overlooked talent.⁹⁶ These hurdles can be particularly challenging for people tenuously connected to the workforce like returning citizens and opportunity youth -- or young adults 16-24 years old who are not in school and not working. As the workforce and education systems adapt, a career pathway approach can provide essential resources to mitigate challenges that some individuals face to entering and thriving in the economy.⁹⁷

Put simply, the game is changing. Many employers seek to hire new workers who already have the required skills, rather than to invest in extensive education and training of staff. Some research has found an ongoing decline in the share of workers receiving employer-sponsored or on-the-job training, and the U.S. has been slow to implement a system of apprenticeship programs on a national scale.⁹⁸ Some sectors like manufacturing and health care have standardized the skills requirements or have gained new efficiencies through technology.

⁹² National Center for Education Statistics, *The Condition of Education 2017*, "2017 Spotlights: First-Time Postsecondary Students' Persistence After 3 Years," 2017, https://nces.ed.gov/programs/coe/indicator_tsc.asp.

⁹³ R. Abel Jaison and Richard Dietz, "Do the benefits of college still outweigh the costs?" *Current Issues in Economics and Finance* 20:3 (Federal Reserve Bank of New York, 2014).

⁹⁴ Anthony P. Carnevale, Nicole Smith, and Jeff Strohl, *Recovery: Job Growth and Education Requirements through 2020*, 2013, Georgetown University Center on Education and the Workforce, <https://cew.georgetown.edu/cew-reports/recovery-job-growth-and-education-requirements-through-2020/>.

⁹⁵ Anthony P. Carnevale, Tamara Jayasundera, and Artem Gulish, *Recovery: College Haves and Have-Nots*, 2016, Georgetown University Center on Education and the Workforce, <https://cew.georgetown.edu/cew-reports/americas-divided-recovery/>.

⁹⁶ Organisation for Economic Co-operation and Development, *Skills Matter: Further Results from the Survey of Adult Skills*, 2016, http://www.oecd.org/skills/piaac/Skills_Matter_Further_Results_from_the_Survey_of_Adult_Skills.pdf.

⁹⁷ Illinois Community College Board, *Expanding Career Pathway Opportunities in Adult Education: Strategic Directions for Illinois*, https://www.iccb.org/iccb/wp-content/pdfs/adulted/strategic_plan/ICCB_Adult_Education_Strategic_Plan_2018-2023.pdf.

⁹⁸ Council of Economic Advisers. *Economic Report of the President*, 2015. http://www.nber.org/links/cea_2015_erp.pdf.



Others have seen a rise in typical education requirements for entry-level positions.⁹⁹ For many low-income and entry-level workers, these trends can result in a cycle of temporary or contract work without the job security, benefits, or training to pursue better opportunities. In short, workers with tenuous connections to the economy make increasingly complex decisions about their own workforce readiness -- that is, how they plan to pursue, pay for, progress through, and complete the education and training required to attain relevant skills. Without action, evidence of increasing training requirements and decreasing employer investments in training raises concerns about compounding inequality.

[GRAPHIC TO COME: A graphic will provide information on career pathway programs and coordination in the region's education and workforce systems.]

The decision to invest in post-secondary education and training can have lifelong economic consequences for individuals and households. Even for workers in high-growth sectors or with industry-recognized credentials, some jobs provide better opportunities for career advancement and upward mobility. Yet many students make costly, self-directed decisions with limited information. In particular, the range of education and credentialing programs has continued to diversify, but sub-baccalaureate credentials are not uniformly valuable for workers and employers.¹⁰⁰ Looking beyond immediate employment needs, the workforce and education systems have increasingly emphasized strategies for connecting individuals to jobs that have the potential to grow in skills and compensation. Achieving these goals requires regional coordination to target educational supports and training in skill areas and occupations that likewise offer pathways to upward mobility.

A career pathway approach offers one model for coordinating public and private resources around programs that connect target populations with supportive, progressive opportunities in growing occupations. These programs offer a series of manageable steps leading to attainment of industry-recognized credentials and career advancement by balancing classroom and work-based learning. Well-articulated guidance on pursuing opportunities is then communicated to individuals and households through multiple workforce channels. In doing so, career pathways synchronize regional workforce needs with individual training needs and help both employers and workers assess the value of credentials in the regional job market.¹⁰¹ Programs have the flexibility and stakeholder input to structure learning and earning opportunities as appropriate for many different occupations and sectors. Examples may include pathways in business

⁹⁹ Audrey Watson, "Employment trends by typical entry-level education requirement," *Monthly Labor Review*, U.S. Bureau of Labor Statistics (2017), <https://www.bls.gov/opub/mlr/2017/article/employment-trends-by-typical-entry-level-education-requirement.htm>.

¹⁰⁰ Veronica Minaya and Judith Scott-Clayton, "Labor Market Trajectories for Community College Graduates: New Evidence Spanning the Great Recession. A CAPSEE Working Paper," Center for Analysis of Postsecondary Education and Employment, 2017.

¹⁰¹ Anthony Carnevale, Tanya Garcia, Artem Gulish, *Career Pathways: Five Ways to Connect College and Careers*, Georgetown University Center on Education and the Workforce, 2017, <https://cew.georgetown.edu/cew-reports/careerpathways/>.



information technology, insurance, advanced manufacturing, transportation and logistics, and health care.

Close cooperation with employers ensures that programs provide in-demand skills, a broad set of necessary supports, and connections to specific work-based learning opportunities. For example, regional collaboration in Long Beach, California, has contributed to substantial increases in the share of local students meeting entrance requirements to that state's university systems, as well as graduation rates among students of color that surpass those statewide.¹⁰² This model can help students balance improved flexibility with assurances of the training's ongoing value. Likewise, by aligning educational systems with the needs of employers, it can help workforce partners enhance the delivery of career counseling, job-placement assistance, and other support services.

The following describes strategies and associated actions to implement this recommendation.

Invest in continued development and implementation of career pathway programs

The promise of a career pathway approach at the regional level depends on decisions and investments made at the program level. Yet programs vary widely in how they implement best practices like a sector focus, support services for participants, career-focused instruction, work-based learning, evidence-based practices, and progression to a recognized post-secondary credential with regional economic value.¹⁰³ For many programs, these steps begin with identifying reliable and flexible funding that supports long-term planning and scaling effective models -- a particular challenge to find in today's environment of limited public resources.¹⁰⁴ While additional funding may be necessary, many administrative actions and supportive policies can contribute to improving programs' capacity, accessibility, quality, and relevance. A core goal should be scaling models that integrate foundational learning with sector-specific workforce preparation and training in occupations that provide opportunities for growth and career advancement. Private sector leadership and investment will be critical to keeping the content and delivery of programs at the forefront of future industry shifts.

Education and training providers -- in partnership with employers -- should develop sector-specific instructional models that reflect evidence-based research, local and regional goals, and skills demand in the labor market.

¹⁰² The Long Beach College Promise, "Ten Year Report: Moving Long Beach Ahead, 2008-2018," http://www.longbeachcollegepromise.org/wp-content/uploads/2018/03/FINALBCP_AnniversaryReport2018_7.25x11-R29.compressed.pdf.

¹⁰³ "Landscape Scan of Progressive Pathways in the Chicago Region, Phase 1 -- Executive Summary," 2017, <https://public.3.basecamp.com/p/MAESNGpbd1vgbRiYpTZtGvhH>.

¹⁰⁴ Illinois Community College Board, *Expanding Career Pathway Opportunities in Adult Education: Strategic Directions for Illinois*, https://www.iccb.org/iccb/wp-content/pdfs/adulted/strategic_plan/ICCB_Adult_Education_Strategic_Plan_2018-2023.pdf.



Education and training providers -- in partnership with workforce funders -- should market and build awareness about career pathways to equip our educators, career counselors, college advisors, and students themselves in strategizing for career and life choices.

Federal and state policy makers should develop funding mechanisms that encourage ongoing development, implementation, and improvement of career pathway programs.

Federal and state policy makers should expand funding models to include greater flexibility for improvements in the quality and delivery of instruction, as well as additional support services that ensure successful program completions and transitions.

Federal and state policy makers should facilitate the integration of planning processes and funding streams in support of career pathway programs.

State and local policy makers -- in partnership with workforce funders -- should establish integrated data systems that capture comprehensive information on career pathway programs and enable analysis of participant outcomes.

Implement a shared vision and strategy to improve, scale, and sustain a regional career pathway system

Few, if any, educational institutions or training programs can meet all the demands of a career pathway program on their own.¹⁰⁵ Instead, goals are achieved through partnerships within a system. In addition to the benefits cited elsewhere in this chapter, career pathways focus on bridging the gaps that can form between a worker's skills and career opportunities by aligning and leveraging the resources already in place to support their employability. Participants may move between the public workforce system, high schools, their current workplace, post-secondary institutions, or apprenticeships as they build from an industry credential to a certificate or degree to new job opportunities. Along the way, providers incorporate employers' skill needs and support services to ensure that participants can attain meaningful progression over time. The value of a system approach is that it connects all relevant public resources with private and nonprofit partners.

The success of a career pathway approach depends on collaborative leadership, commitment, and investment from all regional stakeholders -- especially the private sector. Federal legislation enacted in 2014 with bipartisan support, the Workforce Innovation and Opportunity Act of 2014 (WIOA), codifies a robust definition for career pathways and designates local workforce boards as conveners for coordinating these pathways as a system. Regional coordination -- particularly through WIOA state and local plans -- helps to integrate resources, policies, data, and performance measures across various entities to sustain high quality career pathways. Other

¹⁰⁵ "Expanding Career Pathway Opportunities in Adult Education: Strategic Directions for Illinois," 2018, https://www.iccb.org/iccb/wp-content/pdfs/adulted/strategic_plan/ICCB_Adult_Education_Strategic_Plan_2018-2023.pdf.



implementers can demonstrate leadership in developing a shared vision and coordinated efforts when appropriate, including business associations, chambers of commerce, or community colleges.

Establishing a regional career pathway system offers several benefits. Greater coordination can improve program quality and reduce duplication, overlap, and underutilized capacity across existing programs. Consistent data sharing and accountability can clarify the connectivity between programs and support co-enrollment or articulation agreements. Well-organized evaluations and needs assessments help to align programs with both partners and regional economic development priorities.

Illinois is already a national leader in developing systems at the state and regional levels. The state participates in the Center for Law and Social Policy's national [Alliance for Quality Career Pathways](#), and has launched the [Workforce Readiness through Apprenticeships and Pathways](#) and [Illinois 60 by 25 Network](#) initiatives. Further coordination is necessary to ensure regional resources and structures can properly support existing and emerging career pathway programs as they tackle needs in their communities.

Government, business and civic leaders, educational institutions, and other regional actors should enhance partnerships for a regional career pathway system and assist partners in its implementation.

Workforce funders should strengthen alignment and service integration across core WIOA agencies and required partners to support development of career pathway programs and provision of support services.

Education and workforce providers should collaborate with state and regional partners to pursue integrated service delivery that can reduce duplication and improve delivery services.

Education and workforce providers -- in partnership with workforce funders and employers -- should establish transition frameworks to enable multiple entry points into post-secondary education and to support students' progression toward industry-recognized credentials, sustained employment, and career advancement.

Education and workforce providers -- in partnership with workforce funders -- should develop integrated data systems to evaluate career pathway models and to ensure programs are responsive to local and regional goals, labor market needs, employer feedback, and unified plans.

Education and training providers -- in partnership with workforce funders -- should identify and scale programs that reduce barriers for adult learners in accessing appropriate educational programs and employment opportunities.



Embed career pathway programs in cluster-oriented economic development strategies

The goals of a career pathway approach and cluster-oriented economic development mutually reinforce each other. With a sector-specific focus, career pathways help workers attain credentials that regional employers recognize and value, while also connecting employers directly to workers with the right skills. In doing so, career pathway programs need to have an understanding of the region's unique industry mix, emerging trends within an industry cluster, and the human capital needs that make the Chicago region a destination for such business activity. Related information and analysis lie at the heart of coordinating effective cluster-oriented economic development. Cluster initiatives can help to organize industry leadership to support career pathway programs, especially in industries with opportunities for workers' upward economic mobility that anticipate challenges in filling entry-level positions.

Economic development organizations -- in partnership with cluster organizations -- should fully incorporate strategies to develop and implement high quality career pathways into efforts aimed at supporting the region's traded industry clusters.

Education and training providers should make the program-related decisions that align curricula with skills demand and broaden students' career opportunities in the region's growing and emerging traded clusters.

Career pathway program providers and system administrators should articulate career pathways where knowledge, skills, abilities, and work values can be transferrable across multiple occupations and industries within industry clusters.

Develop mechanisms to adapt career pathway programs according to labor market demand

The State of Illinois and regional partners have made significant strides in articulating career pathways based on rigorous market analysis. But ongoing analysis and coordination are necessary for continuous improvement toward higher quality education and training. To reap the potential benefits of a career pathway approach, the region should ensure its existing and emerging programs reflect labor market demand in their communities. Doing so requires mechanisms for strong industry engagement in each segment of a career pathway, as education and training providers identify employers' skills need, work-based learning opportunities, specific job placements, and evidence-based improvements. Such engagement is critical to demonstrating the region's human capital to industry and the return on investment to regional and state leaders.

Partners in the region's career pathway system should identify strategies to better capitalize on labor market information, regional economic development goals, and local employer input. Integrated education, workforce, and related data would enable partners to evaluate



participation and outcomes with a focus on decreasing inequality. Improved coordination also allows pathways to leverage a broader range of resources, such as collaborating with area employers to develop apprenticeship programs and related curricula. In particular, aggregating conclusions across public and private entities would help spur regional employment and productivity growth.

Enhance economic innovation

As the global economy evolves, sustainable and resilient growth increasingly depends on metropolitan Chicago's capacity to convert new ideas into higher productivity and greater competitiveness. Public strategies can create the conditions for such innovation to fuel longer, more sustained, and inclusive economic growth.¹⁰⁶ Despite its many economic assets, key ON TO 2050 indicators like patenting and venture capital activity suggest that the region [lags](#) behind peers in terms of research, commercial development, and entrepreneurial activity.

Innovation can take many forms and occurs throughout the economy. Rapid technological changes are often the most prominent examples, such as recent advances in artificial intelligence, advanced materials, and the digitalization of services.¹⁰⁷ New, unforeseeable industries can arise as these breakthroughs find applications throughout the economy. However, other forms of innovation can also generate important economic benefits, such as better ways of operating a business. More subtle process innovations can help businesses reduce errors or costs, increase output, and improve quality, speed, and functionality. For example, advances in data analytics have allowed businesses to reorganize production and distribution, finding new efficiencies.¹⁰⁸ Based on recommendations of the GO TO 2040 plan and subsequent analysis, CMAP's policy and planning work aims to support the full range of innovative and entrepreneurial activities that contribute to economic vitality.

Innovation necessarily begins with strong investments in human capital, which will always be the region's source of next-generation ideas and its strongest competitive advantage. An inclusive, high quality labor force spurs innovation in two ways: by developing more innovative ideas and by implementing those ideas more readily. Innovation from the region stands to benefit from diversifying the voices contributing to their development.¹⁰⁹ At the same time, the diffusion of new technologies and processes requires mobilizing our full inventive talent at all skill levels. As new innovations find uses throughout the economy, workers in most

¹⁰⁶ National Science and Technology Council, "National Network for Manufacturing Innovation Program: Annual Report," Executive Office of the President, 2016, <https://www.manufacturing.gov/files/2016/02/2015-NNMI-Annual-Report.pdf>.

¹⁰⁷ James Manyika, Michael Chui, Mehdi Miremadi, Jacques Bughin, Katy George, Paul Willmott, and Martin Dewhurst, "A future that works: automation, employment, and productivity," McKinsey Global Institute, 2017.

¹⁰⁸ Manyika et al. "A future that works."

¹⁰⁹ Laurel Smith-Doerr, Sharla N. Alegria, and Timothy Sacco, "How diversity matters in the U.S. science and engineering workforce: a critical review considering integration in teams, fields, and organizational contexts," *Engaging Science, Technology, and Society* 3 (2017): 139-153.



occupations and at all skill levels will need to be equipped to use them to accomplish a wide range of creative and problem-solving tasks.¹¹⁰

Because the private sector is a key driver of innovation and commercialization, the role of the public sector is to find ways to help spur innovation by supporting institutions, relationships, and the essential components of a modern economy. Policies and programs should focus primarily on supporting dense, dynamic economic activity in the Chicago region and ensuring that different, diverse parts of the region can participate. ON TO 2050 emphasizes entrepreneurial growth and the adoption of innovations among incumbent businesses, while acknowledging the vital role and importance of new idea generation and development. CMAP continues to support the work of other organizations striving to improve our region's position at the cutting edge of scientific, technological, and commercial breakthroughs.

[GRAPHIC TO COME: An illustration of metropolitan Chicago's deep assets in higher education and research.]

The following describes strategies and associated actions to implement this recommendation.

Leverage institutions of higher education and research for economic development

While their primary output is talent and not technology, universities and community colleges have extensive resources to support economic growth through fostering development, retention of viable commercial startups, and local efforts to build inventive talent. Many R&D-intensive firms benefit from proximity to institutional assets like specialized research, data resources, analytical and faculty expertise, and business counseling services. The region's national laboratories and other research institutions likewise offer exceptional opportunities for economic development. As strategies for regional growth take shape, CMAP and partners should draw on unique assets not present in other regions and connect them to regional firms and investors. This should include higher rates of research and development investments, higher rates of new business formations, and the diffusion and commercialization of innovations among existing businesses.

CRGC or a similar entity -- in partnership with local EDOs and the innovation ecosystem -- should pursue strategies to connect the region's national labs, universities, and other research institutions to market opportunities with regional firms and investors.

CRGC or a similar entity -- in partnership with local EDOs -- should support institutions and relationships that provide services to small and medium-sized enterprises lacking access to their innovation ecosystems and financing.

¹¹⁰ Carl Benedikt Frey and Michael A. Osborne, "The future of employment: how susceptible are jobs to computerisation?" *Technological Forecasting and Social Change* 114, 2017: 254-280.



The State of Illinois should provide robust and reliable public funding for higher education, which is crucial for cultivating, retaining, and attracting innovative talent and businesses to northeastern Illinois.

CRGC or a similar entity -- in partnership with local EDOs and the innovation ecosystem -- should leverage economic and research assets in the transportation, distribution, and logistics industry cluster to remain a destination for related innovative activity.

Diversify the entrepreneurial voices engaged in problem and solution development

Today, metropolitan Chicago limits its own innovative capacity when it fails to expose many residents to a culture of innovation and to invest in their education, skills acquisition, and entrepreneurship.¹¹¹ Research demonstrates that even high-aptitude students from lower income and diverse backgrounds are impeded from participating in innovation and invention.¹¹² A U.S. Department of Commerce report also found that minority-owned businesses receive fewer, smaller, and more expensive loan and equity investments than non-minority businesses.¹¹³ Without more investment in the region's human capital and deliberate steps to ensure financial inclusion, these drains on productivity will continue to hinder the region's economic growth.¹¹⁴ An analysis by the Federal Reserve Bank of Cleveland showed that racial and ethnic diversity, openness to immigrants, and low rates of racial segregation contribute to growth in employment and productivity.¹¹⁵ Put simply, strategies for inclusive growth will broaden the pool of creative talent and market-driven inventions available to businesses. Exposing diverse residents to successful entrepreneurs and the so-called "opportunities of failure" can create a fertile environment for innovation in all areas of the region.¹¹⁶

The innovation ecosystem should improve access to capital, science, technology, engineering, arts, and mathematics education, and training opportunities for residents of EDAs.

¹¹¹ Chicago Metropolitan Agency for Planning ON TO 2050 strategy paper, "Inclusive Growth," 2017, <http://www.cmap.illinois.gov/onto2050/strategy-papers/inclusive-growth>.

¹¹² Alexander Bell, Raj Chetty, Xavier Jaravel, Neviana Petkova, and John Van Reenan. "Who Becomes an Inventor in America? The Importance of Exposure to Innovation," NBER Working Paper No. 24062 (2017).

¹¹³ Federal Reserve Banks of Atlanta and Cleveland, *Small Business Credit Survey: Report on Minority-Owned Firms*, 2017, <https://www.clevelandfed.org/en/community-development/small-business/about-the-joint-small-business-credit-survey/2016-small-business-credit-survey.aspx>.

¹¹⁴ Christ Benner and Manuel Pastor. *Equity, Growth, and Community: What the Nation Can Learn from America's Metro Areas*. (California: University of California Press, 2015) DOI: <http://dx.doi.org/10.1525/luminos.6>.

¹¹⁵ Randall Eberts, George Erickcek, and Jack Kleinhenz, "Dashboard Indicators for the Northeast Ohio Economy: Prepared for the Fund for Our Economic Future," *Federal Reserve Bank of Cleveland Working Paper* (2006):20.

¹¹⁶ Olav Sorenson, "Regional ecologies of entrepreneurship," *Journal of Economic Geography* 17 (2017), 959-974.



The innovation ecosystem should provide mentorship, internship, apprenticeship, and other opportunities that ensure all residents with an aptitude for invention are exposed to a culture of innovation.

Reorient policies to better support innovation and entrepreneurship

Both the quality of an innovation and the extent to which it is used determine the impact it will have on the economy. Economic innovation requires both conceiving new ideas and adapting them into the technologies, processes, business models, and industries that bring improved goods and services to market. Some innovations find expression in entirely new offerings or startups, while others manifest as new efficiencies and business expansion. As a result, the innovations that enable growth are generated by the private sector but can be supported through public policy. Research continues to refine how the public sector can best support an innovation and entrepreneurship ecosystem. At root, innovation is the product of vibrant economic activity, a robust business environment, and high quality human capital. Broad economic development can help to align and improve existing initiatives to create value through the innovation process.

Policies and programs regarding economic innovation frequently focus more on spurring new ideas than on expanding their diffusion and adoption. Customary strategies include support for basic scientific research, intellectual property rights, access to capital, and commercial development. Continuous improvement in these areas remains important. However, other local and regional strategies can build on this foundation to leverage new innovations for global competitiveness. For a wave of innovation to drive economic growth, advances need to spread across multiple sectors, attract additional business investment, and translate into higher productivity. Resources and policies for economic development should be tailored to support the efforts of viable young companies attempting to scale up and the adoption of innovations among incumbent businesses. Local and state officials should consider overall economic gains and regional goals in assessing the appropriateness of plans, policies, and programs regarding innovation. Some state policy reforms may be necessary to promote competitiveness, such as changes in regulations regarding non-disclosure or non-compete agreements. The variety of these supports and their effectiveness is significant. CMAP and partners should continue to serve as a resource for information and analysis on regional economic performance, existing resources that support our innovative capacity, and best practices to support industry innovators.

Identify and communicate stronger metrics for tracking innovation

Sound measurement of innovation is crucial for evaluating the efficiency of public policies and programs, and assessing their contribution to achieving regional goals. Yet the data currently available cannot adequately account for the full role innovation and entrepreneurship play in today's economy. Numerous metrics have been developed to help regions position their innovative capacity relative to peers. These indicators typically focus on inputs to idea



generation, such as R&D expenditures, venture capital, and STEM jobs.¹¹⁷ Due to data access and quality problems, measurements of outcomes -- the economic value of new-to-market or new-to-firm innovations -- remain underrepresented.¹¹⁸ The use of indicators overly focused on inputs can lead local and regional stakeholders to overlook the importance of rapid technology adoption and other more subtle forms of innovation.¹¹⁹ In support of performance-based approaches, CMAP and partners should develop additional information regarding public investments, regional industry trends, and economic outcomes.

Responsive, strategic workforce and economic development

Today's economy has grown increasingly complex, transformed by technological advancements, global competition, emerging industries, and evolving consumer demand. As a result, metropolitan Chicago needs to strengthen itself in light of both anticipated and unforeseen economic shifts of the future. Effective public policies and public investments can connect limited resources across governments at every level with private and nonprofit partners. Yet decisions directed at workforce and economic development frequently lag far behind the pace of change and do not reflect the breadth or scale of our region's economic assets. Instead, administrative challenges or insufficient information can limit the economic benefit of public expenditures.

Analysis of the regional economy makes it clear that achieving stronger growth will require policy-based decisions executed through coordinated, sustained initiatives rooted in the needs of particular communities and industries. The effectiveness of these efforts can be bolstered through better coordination that is performance-based relative to goals, responsive to changing demands, and strategic in leveraging the region's strengths. Metropolitan Chicago remains a global economic engine, and by enhancing our workforce and economic development practices, we can secure our position in the 21st century's changing markets.

Conduct regional planning for human capital

As the economic asset that least heeds jurisdictional boundaries, human capital is indispensable to regional prosperity.¹²⁰ Economic growth necessarily hinges on addressing common obstacles to residents' long-term employability. Metropolitan Chicago is home to a well-educated and

¹¹⁷ Organization for Economic Co-operation and Development, *Measuring Innovation: A New Perspective*, 2010, <http://www.oecd.org/innovation/strategy/measuring>.

¹¹⁸ Arnobio Morelix, E.J. Reedy, and Joshua Russell, *The Kauffman Index of Growth Entrepreneurship: Metropolitan Area and City Trends*, (Kansas City, MO: Ewing Marion Kauffman Foundation, 2016).

¹¹⁹ Lee Branstetter and Daniel Sichel, "The case for an American productivity revival," *Policy Brief* no. 17-26, Peterson Institute for International Economics, 2017.

¹²⁰ Nicola Gennaioli, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, "Human Capital and Regional Development," *The Quarterly Journal of Economics* 128,1 (2013), pgs. 105-164.



diverse workforce of nearly 5 million workers,¹²¹ whose knowledge and ingenuity are why many businesses choose to operate here.¹²² Yet our region must bridge the gaps between adults seeking to build a career and employers looking to build their workforce. Our education and workforce development investments must become more strategic and demand-driven in the face of uncertain future labor market shifts.

[GRAPHIC TO COME: A series of photos will show the diversity of the region’s residents and skilled occupations.]

Employment and demographic trends, demand for skills, and economic inequality are changing the demands placed on workers, as well as on adult education and training programs. Technological advancements are augmenting work in most occupations and at all skill levels, altering how workers use their time and conduct tasks.¹²³ Residents increasingly need to earn additional post-secondary training to enter the workforce and continuously enhance their skills over time to stay in the workforce.¹²⁴ Applicants increasingly need to demonstrate improved problem solving, literacy, numeracy, professional, and communication skills to be competitive in the job market.¹²⁵ Workers increasingly need to interact adeptly with technology to anticipate, identify, and resolve problems.¹²⁶

These trends deepen concerns that technological advances, industry shifts, and other macro issues could exacerbate existing trends toward “job polarization.” Since 1980, relative demand for labor has been concentrated in either low-skilled (e.g., personal services or food production) or high-skilled jobs (management and professional occupations), accompanied by an erosion of those in the middle.¹²⁷ In particular, technology has helped to automate or streamline many repetitive tasks, while augmenting higher skilled jobs. The profile of a middle-income job -- traditionally in middle-skilled construction, production, or clerical roles -- has shifted toward

¹²¹ Chicago Metropolitan Agency for Planning analysis of Bureau of Labor Statistics data.

¹²² Chicagoland Chamber of Commerce and Loyola University Chicago, Quinlan School of Business, *The State of Small Business: 4th Annual Chicagoland Small Business Outlook Survey, 2018*, https://www.chicagolandchamber.org/Portals/0/Small Business/2017_Chicagoland Small Business Survey_Infographic Brochure.pdf.

¹²³ Era Dabla-Norris, Si Guo, Vikram Haksar, Minsuk Kim, Kalpana Kochhar, Kevin Wiseman, and Aleksandra Zdzienicka, *The new normal: A sector-level perspective on productivity trends in advanced economies*, (International Monetary Fund, 2015).

¹²⁴ James Manyika, Michael Chui, Mehdi Miremadi, Jacques Bughin, Katy George, Paul Willmott, and Martin Dewhurst, *A future that works: automation, employment, and productivity*, (McKinsey Global Institute, 2017).

¹²⁵ World Economic Forum. “Skills Stability” *The Future of Jobs: Employment, Skills and Workforce Strategies for the Fourth Industrial Revolution*. January 2016.

¹²⁶ Melanie Arntz, Terry Gregory, and Ulrich Zierahn, “The risk of automation for jobs in OECD countries: A comparative analysis.” *OECD Social, Employment, and Migration Working Papers* 189 (2016).

¹²⁷ Maximiliano Dvorkin and Hannah Shell, “Labor market polarization: How does the district compare with the nation?” *The Regional Economist* 2 (The Federal Reserve Bank of St. Louis, 2017).



occupations that require more training.¹²⁸ Many workers in the Chicago region face the prospect of more training requirements for fewer middle-skill, middle-wage jobs in occupations dramatically different from those of the past. These economic realities have contributed to a decline in real median household income nationwide and a 4.9 percent decline in the Chicago metropolitan area during 1989-2016.¹²⁹

Recent studies also show that economic mobility is declining for many Americans: Children's prospects of eventually earning more than their parents have fallen in America from above 90 percent for those born in 1940 to near 50 percent for those born in the early 1980s.¹³⁰ In other words, fewer than half of millennials are likely to earn more than their parents. An analysis of economic data demonstrates that declines in economic mobility are more concentrated in the middle class, the industrial Midwest, and regions with higher existing levels of economic inequality, like Michigan and Illinois.¹³¹ The cumulative effect of income inequality also hinders the growth and resilience of urban U.S. counties in the face of future economic uncertainty.¹³² Between 2006-10, income inequality was one of the most effective ways of predicting a county's risk of entering into recession.¹³³ Existing disparities -- particularly by race and ethnicity -- further erode the region's human capital when all residents cannot fully contribute to and benefit from the regional economy. Instead, regions can experience more robust and longer periods of growth if residents have equitable access to economic opportunity.¹³⁴ Addressing these issues will require coordinated action on strategies across ON TO 2050.

The adult education and training systems provide essential knowledge and skills for workers to secure their own long-term employability as part of the region's human capital. However, persistent administrative challenges and limited public funding can undermine the effectiveness of these systems. Emerging issues will require these systems to become more responsive and employers more engaged in addressing labor market needs on a regional scale. ON TO 2050 focuses on the critical role of high quality adult education and training in

¹²⁸ David Autor and David Dorn, "The growth of low-skill service jobs and the polarization of the U.S. labor market," *The American Economic Review* 103, no. 5 (2013): 1553-1597.

¹²⁹ Chicago Metropolitan Agency for Planning Regional Economic Indicators website, 2017, <http://www.cmap.illinois.gov/economy/regional-economic-indicators/trends/trends>.

¹³⁰ Raj Chetty, David Grusky, Maximilian Hell, Nathaniel Hendren, Robert Manduca, and Jimmy Narang. "The fading American dream: Trends in absolute income mobility since 1940." *Science* 356, no. 6336 (2017): 398-406.

¹³¹ Chicago Metropolitan Agency for Planning analysis of data in Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, "Where is the land of opportunity? The geography of intergenerational mobility in the United States," *The Quarterly Journal of Economics* 129, no. 4 (2014): 1553-1623.

¹³² Randall Eberts, George Erickcek, and Jack Kleinhenz, "Dashboard Indicators for the Northeast Ohio Economy: Prepared for the Fund for Our Economic Future," Federal Reserve Bank of Cleveland Working Paper (2006):20.

¹³³ Paul Lewin, Philip Watson, and Anna Brown, "Surviving the Great Recession: the influence of income inequality in US urban counties," *Regional Studies* (2017): 1-13.

¹³⁴ Andrew Berg and Jonathan Ostry, "Inequality and Unsustainable Growth: Two Sides of the Same Coin?" *International Monetary Fund Staff Discussion Note* (2011), <http://dx.doi.org/10.5089/9781463926564.006>.

achieving the region’s economic goals, while acknowledging the vital importance of early childhood, primary, and secondary education.

In many ways, the Chicago region has been a national leader in reforming the public workforce system. The Workforce Innovation and Opportunity Act requires workforce boards to conduct state-level and regional strategic planning, as well as to strengthen and expand partnerships with the private sector. Some of the Act’s key reforms were based on strategies already underway in our region. To be resilient in the face of a rapidly changing global economy, metropolitan Chicago must build on related local and state efforts to improve unified workforce planning, partnership development, and integrated data systems. While these strategies focus on improved coordination, the importance of robust public investment in workforce development cannot be overstated.

The following describes strategies and associated actions to implement this recommendation.

Enhance coordination between industry and the workforce development system

Leaders from industry and the workforce development system should develop better ways to share information. Each makes significant investments affecting what the region’s labor supply has to offer and where the labor supply can be enhanced. Without adequate communication and collaboration, recurring misalignment can squander mutual benefits to businesses and workers. Broad, ongoing, and meaningful industry engagement provides the workforce system with real-time signals on employers’ needs and training opportunities. In turn, education and training programs can better prepare participants to solve problems adeptly, adopt new technologies, and operate in the evolving contexts that employers face. Such information should serve as a basis for collaboration and guide how limited resources are allocated in response to regional needs.

The region’s Workforce Investment Boards (WIBs) and their workforce development partners have set national best practices to address the substantial needs among low- and middle-skilled workers. For example, several regional partners including the Skills for Chicagoland’s Future and the Chicago Cook Workforce Partnership have developed strong demand-driven strategies and programs. Moving forward, they should continue to be key implementers for engaging industries. With the implementation of WIOA, employers have multiple specific ways to participate in workforce investments. These include sharing information with the region’s American Job Centers regarding job postings and leads, working with education and training providers to identify needed skill competencies and qualifications, and retaining job seekers in employment by helping to articulate and implement career pathways. In particular, employers and the workforce development system should collaborate to use candidates’ cross-sector skills and reduce procedural barriers to overlooked talent.

Enhance coordination among the region’s community colleges

Community colleges remain at the forefront of improving access to adult education and training opportunities, as well as maintaining a skilled regional workforce. In light of today’s economic realities, they face new calls to shorten the time to completion, infuse remedial education with



skills training, and provide flexibility for students to balance work and school, while building long-term employability. Meeting these evolving needs will require community colleges and the State of Illinois to re-evaluate the current model for static district boundaries. Increasingly, these institutions must work together to share data, develop programming, prioritize uses of limited funding resources, and rationalize or coordinate specific educational programs across multiple districts. Such efforts are critical to pursuing other ON TO 2050 strategies, such as continuing to develop career pathways and adapting curricula to changing skills demand. Employers frequently cite inconsistency and fragmentation among community colleges as a barrier to effective partnerships.¹³⁵

Community colleges have already taken steps to increase enrollment in career training across district boundaries. In response to limited public funding, all 39 community college districts in Illinois signed on to participate in the Comprehensive Agreement Regarding the Expansion of Educational Resources (CAREER Agreement). The agreement allows students to enroll in career and technical education programs offered at any other Illinois community college if their home district does not offer the program, while paying in-district resident tuition and fee rates. This cooperation is a prime example of strategies that improve the community college system's efficiency and responsiveness to shifting education and employment trends, while reducing unnecessary duplication.

Incorporate human capital priorities into sub-regional planning

The benefits and burdens of major job market shifts affect communities in different ways. Negative outcomes often accrue to places with limited capacity to foresee and respond to evolving workforce needs. These places also frequently have limited connections to adult education and training, employment opportunities, and other resources required in an increasingly competitive economy. Human capital is essential for achieving any local and regional growth goals, and therefore to any decisions about local land use, transportation, and economic development. Yet communities can vary widely in their capacity and technical expertise for human capital planning, which could consider industry and occupation trends, local job market changes, and the employment outcomes of local training programs.

Workforce development efforts achieve the most when workforce boards, training providers, employers, educators, service providers, and economic development agencies work together to leverage economic assets that extend across jurisdictional boundaries. Local and sub-regional plans should build on the strategic and operational planning already conducted by the region's WIBs. These plans assess the area's leading and emerging industries, employment and unemployment data, labor markets trends, and educational and skill levels of its workforce. However, residents face barriers to employment that go well beyond just education and training needs. Addressing the unique job market opportunities and challenges of local communities will require collaboration on a broad array of place-based strategies.

¹³⁵ ICCB Workforce Education Strategic Planning Project: Report on the Regional Forums, submitted by Maher & Maher to ICCB and DCEO. Available at https://www.iccb.org/iccb/wp-content/pdfs/workforce/ICCB_Summary_Report_on_Workforce_Strategic_Plan_Forum.pdf.



Improve access to education and employment opportunities that promote upward mobility

The regional transportation system's primary purpose is to connect residents and businesses to opportunity. Yet some historical transportation investments and development patterns have prevented communities from sharing in new prosperity. Residents in EDAs have lower rates of vehicle ownership and frequently rely on public transit to connect them to resources for education and employment.¹³⁶ However, commutes from these areas to economic opportunities often require covering long distances or making multiple transfers.¹³⁷ For example, despite living in areas with relatively high transit availability, residents on the South and West sides of Chicago commute up to 58 hours more each year than the region's average resident.¹³⁸ Such disparities illustrate the relative challenge of accessing job and training resources in the region, as well as additional drags on the productivity of the region's human capital.¹³⁹

For workers to advance economically, these communities need local economic growth and improved access to high quality transportation options that reliably connect them to opportunities for upward economic mobility. Transportation and land use planning should prioritize strategies that connect all residents and particularly those in EDAs to high quality education and employment. Such strategies are especially important given WIOA's emphasis on serving populations with barriers to accessing or sustaining employment. Pursuing the region's inclusive growth goals will require leveraging the transportation system to connect residents to economic opportunities.

Local governments -- in partnership with economic development organizations, business associations, and chambers of commerce -- should encourage future economic growth and development to occur in already-developed areas with access to transit.

Transit agencies, local communities, and the private sector should work together to develop pilot projects that explore new methods of providing targeted, flexible, or on-demand services that connect EDAs to suburban job centers.

Transit agencies should explore and pilot new fare strategies, such as fare capping or low-income fares, which reduce fare burden on low income populations and social service providers."

¹³⁶ Chicago Metropolitan Agency for Planning Policy Update, "Economically Disconnected Area clusters in the CMAP region," 2018, http://www.cmap.illinois.gov/updates/all/-/asset_publisher/UIMfSLnFfMB6/content/economically-disconnected-area-clusters-in-the-cmap-region.

¹³⁷ Chicago Metropolitan Agency for Planning Policy Update, "Travel patterns in Economically Disconnected Area clusters," 2018, http://www.cmap.illinois.gov/updates/all/-/asset_publisher/UIMfSLnFfMB6/content/travel-patterns-in-economically-disconnected-area-clusters.

¹³⁸ Chicago Metropolitan Agency for Planning analysis of American Community Survey data, 5-year estimates, 2010-14.

¹³⁹ Elizabeth Kneebone and Natalie Holmes, "The growing distance between people and jobs in metropolitan America," Brookings Institution (2015), <https://www.brookings.edu/research/the-growing-distance-between-people-and-jobs-in-metropolitan-america/>.



Transit agencies should continue to make progress toward universal accessibility of stations.

CMAP should take a leadership role in identifying gaps in the transportation system for economically disconnected communities, articulating the individual, local, and regional growth benefits of making such transportation connections.

Align local economic development planning with regional goals

Collaboration across communities to support regional goals can make efficient use of limited fiscal resources by supporting industries that connect us to the global economy. Through their role in planning for and regulating local development, local governments support small but significant pieces of regional markets for retail, office, industrial, and other development types, which house the industries that form the base of the region's economy. These cumulative local decisions create the region's communities and economic centers, with broad impacts on infrastructure needs, commute patterns, goods movement, and overall regional economic success. At the same time, the economic assets that make up communities' core competitive advantage often extend across jurisdictional boundaries.

[GRAPHIC TO COME: An interactive graphic will provide examples of multijurisdictional collaboration for local economic development.]

Individual communities may find it challenging to play their pivotal role in planning for the region's economy. The region has some examples of planning for workforce development or forming coalitions to support specific industries.¹⁴⁰ But local plans often focus on land use and development types, with less consideration of their contributions to regional economic growth and prosperity. Communities respond to the direct concerns of residents and businesses by assessing how solutions fit with community character and goals, public service costs, tax revenue impacts, or traffic and parking impacts. In comparison to economic impacts, fiscal considerations may play an outsized role in development decisions and investments. CMAP research has indicated that economic development that supports higher wage jobs and induces employment region-wide may not generate significant levels of municipal revenue given current local tax policies.¹⁴¹ For example, globally traded industries often operate in office or industrial development types, but some local planning efforts are not geared toward these land uses.

¹⁴⁰ Chicago Metropolitan Agency for Planning, "Manufacturing in the Golden Corridor: Golden Corridor Advanced Manufacturing Partnership," 2014, <http://www.cmap.illinois.gov/documents/10180/113409/Final+Manufacturing+in+the+Golden+Corridor+Existing+Conditions+Report.pdf/efc4ec4d-a6c9-4fe7-8d02-7fd5c3afe1ad>.

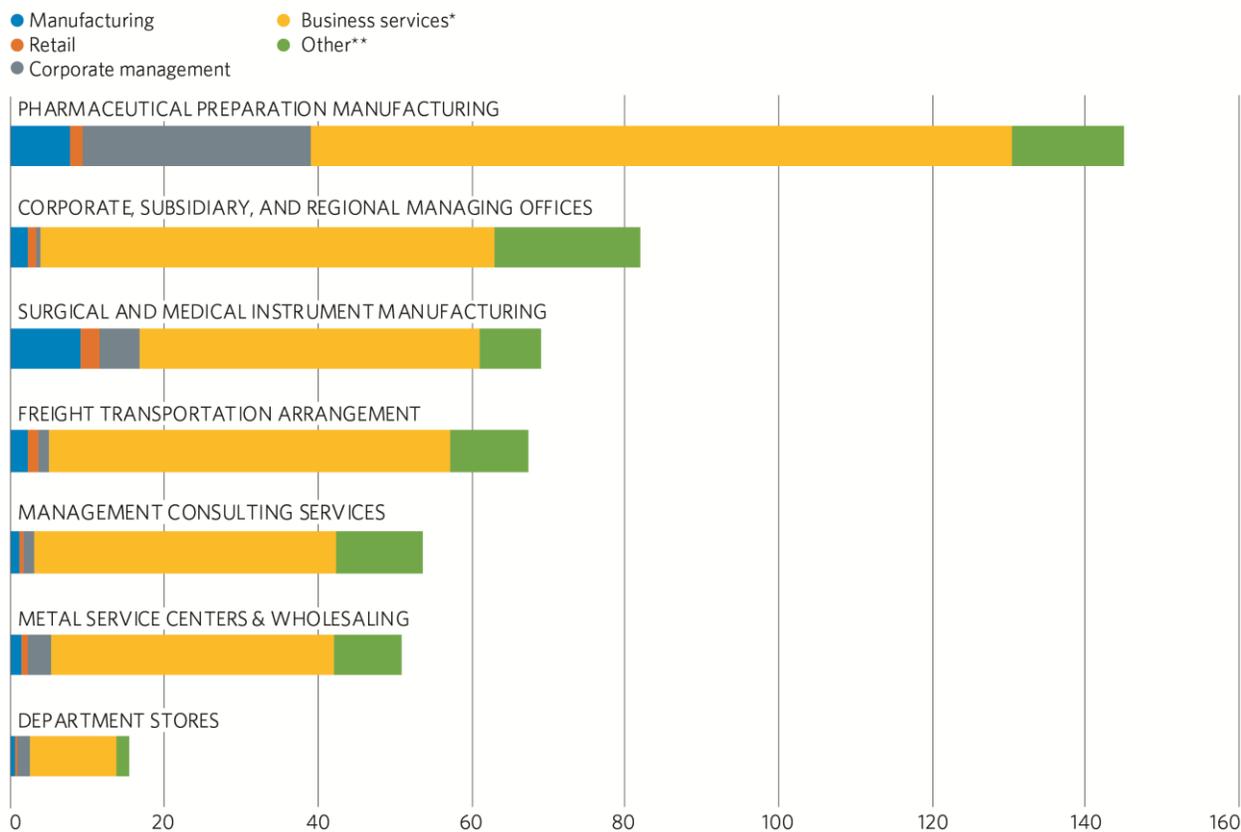
¹⁴¹ Chicago Metropolitan Agency for Planning, "Fiscal and economic impact analysis of local development decisions," January 2014, <http://cmap.is/2mfrlPw>.



Number of additional jobs supported in the region from an increase of 100 jobs in manufacturing , retail, or office development, by sector

Note: Economic impact analysis includes both direct and indirect effects.

Source: Chicago Metropolitan Agency for Planning analysis of Economic Modeling Specialists International data (Emsi 2018.1)



* Includes wholesale trade; transportation and warehousing; finance and insurance; real estate, rental, and leasing; professional, scientific, and technical services; administrative, support, waste management, and remediation services

** Includes agriculture, forestry, fishing, and hunting; mining, quarrying, oil and gas extraction; utilities; construction; information; educational services; health care and social assistance; arts, entertainment, and recreation services; accommodation and food services; government; other services

Many governments provide economic development incentives to specific businesses that already intend to locate within the region or submarket. Officials use incentives to subsidize revenue-generating development, compete with another jurisdiction, or compensate for weak spots in their overall business environment. This activity can result in public expenditures for limited economic gain.¹⁴² Many communities do provide incentives to developments that meet local and regional goals such as increasing particular types of employment, promoting infill, remediating brownfields, and/or encouraging mixed-use development.¹⁴³ Given limited fiscal resources, the region’s communities should coordinate to support regionally beneficial

¹⁴² Nathan M. Jensen, “Job creation and firm-specific location incentives,” *Journal for Public Policy* 37,1 (2017).

¹⁴³ Chicago Metropolitan Agency for Planning, *Fiscal and Economic Impact Analysis of Local Development Decisions*, January 2014, <http://cmap.is/2mfrlPw>.

industries and to target incentives for development of regional and local economic benefit. Communities can reduce costs by planning together and pursuing initiatives like establishing boundary agreements, sharing services or infrastructure to mutually support new development, or sharing revenues from specific developments.

This recommendation also appears in the *Community* chapter.

The following describes strategies and associated actions to implement this recommendation.

Proactively coordinate local economic development efforts

Economic development achieves the most when municipalities, counties, and other partners work together across jurisdictional borders. The region's communities collectively share in and build up our competitive advantages of a skilled workforce, extensive transportation infrastructure, and strong quality of life. Local governments, economic development entities, and others could improve outcomes, expand staff expertise and resources, and reduce costs by partnering on services like business expansion, retention, and attraction. Many jurisdictions with lower fiscal or staff capacity may need assistance for initial collaborations. CMAP, the region's counties, universities, and civic organizations can play a substantive role in helping local governments collaborate. Nationally, many examples of successful partnerships to meet regional and local goals exist. In Cuyahoga County, Ohio, the hyper-competitive environment created by municipalities' pursuit of income tax revenue led to a non-compete agreement to encourage intraregional cooperation for business development.¹⁴⁴ The Denver region implemented a similar agreement in 1987.¹⁴⁵ For additional information, see the ON TO 2050 strategy paper Tax Policies and Land Use Trends.¹⁴⁶

Local governments should implement best practices for subregional economic development to reduce costs and achieve broader economic goals.

Cook County should phase out the property tax classification system to reduce the higher tax burden on commercial and industrial property taxpayers relative to residential properties that can result in market distortions.

CMAP and partners like ULI and CRGC should research case studies and best practices for subregional coordination of economic development. Examples include non-compete agreements, joint economic development initiatives, infrastructure and service sharing, tax base sharing, boundary agreements, and other initiatives.

¹⁴⁴ Cuyahoga County, "Business Attraction & Anti-Poaching Protocol," http://regionalcollaboration.cuyahogacounty.us/pdf_regionalcollab/en-US/AntiPoachingProtocol.pdf.

¹⁴⁵ Chicago Metropolitan Agency for Planning, "Reorienting State and Regional Economic Development: Lessons Learned from National Examples," 2014, <http://cmap.is/%202ITAonC>.

¹⁴⁶ Chicago Metropolitan Agency for Planning ON TO 2050 strategy paper, "Tax Policies and Land Use Trends," 2017, <http://www.cmap.illinois.gov/onto2050/strategy-papers/tax-policy-land-use>.



CMAP and partners should help municipal coalitions to plan for local economic development, focusing on sub-regions that have common planning needs and goals for business expansion, human capital, freight movement, and similar issues with strong relevance to the region's economy.

CMAP should assist local governments to plan for and invest in multijurisdictional transportation investments that best support economic productivity.

CMAP, MPC, counties, and COGs should facilitate new partnerships between municipalities and develop materials illustrating the benefits of coordinating on shared economic development priorities.

Enhance economic development expertise of municipal staff and officials

Municipal economic development initiatives seek to build vibrant places, enhance job centers and commercial corridors, or retain and build existing industries. Such local efforts vary greatly in scope, from small-scale main street improvements to redevelopment of major office and industrial subcenters. Regardless of its scale, each activity needs municipal staff and elected officials with the knowledge and resources to carry out strategies appropriately, including infrastructure investment, economic development planning, business development, and incentives.

Municipal staff and officials interviewed through the ON TO 2050 planning process emphasized the need for more skill-building resources and guidance on economic development best practices.¹⁴⁷ New trainings and resources can also build on the incentive, market, and fiscal feasibility recommendations of ON TO 2050, helping to improve local planning, development, and investment processes. In partnership with COGs, counties, civic organizations, and universities, CMAP should provide technical assistance for communities to build local capacity for economic development planning.

CMAP and partners such as ULI should provide tools to help local governments effectively use incentives, taking into account the full costs of related public services, initial infrastructure improvements, and future infrastructure maintenance.

Partners and CMAP should provide guidance to local partners on best practices for zoning, permitting, development regulation, market analysis, tax incentives, and transportation funding that support economic productivity and reduce market barriers.

¹⁴⁷ Chicago Metropolitan Agency for Planning, "ON TO 2050 Alternative Futures Engagement Summary," 2017, <http://www.cmap.illinois.gov/documents/10180/776689/ON+TO+2050+Alt+Futures+Engagement+Summary.pdf/7e55dc3f-192c-b5a6-ef00-d4b49e9cfdbc>.



Partners, educational institutions, and CMAP should establish regular trainings, networking events, and other resources to promote best practices on joint economic development initiatives, economic development planning, incentive policies, market analysis, business attraction and retention, and related topics.

CMAP and MMC should explore partnerships like the Southern Illinois University Edwardsville team that leads the Illinois Basic Economic Development Course, to create similar offerings tailored for staff and elected officials.¹⁴⁸

Reform incentives for economic development

Metropolitan Chicago can thrive only to the extent that businesses operating here compete successfully in global and national markets. Businesses base their strategies on state and local conditions, which determine access to high quality inputs like talent, capital, infrastructure, and research. Economic development programs therefore seek to improve the region’s business environment and foster sophisticated ways of competing. Given limited public resources, communities are looking for strategies that can make a significant impact on their growth and prosperity.

The State of Illinois and many local governments offer financial incentives to subsidize revenue-generating development and attract or retain specific businesses. These incentives can take many forms like tax preferences, abatements, and credits; non-tax cash grants and loans; or other subsidies like infrastructure investments, training and education subsidies, fee waivers, and land write-downs. Businesses can capitalize on competition among neighboring states and localities while drawing on the same labor pool, supply chain, natural resources, and other assets that actually underpin their profitability. As a result, poorly coordinated or targeted economic development incentives result in public expenditures for limited economic gain.¹⁴⁹ Direct investment and financial incentives remain the prevailing way that many state and local governments seek to attract businesses. Yet this strategy is no match for the complex demands of economic growth and resilience, which depend on the formation and expansion of businesses native to the region.¹⁵⁰

[GRAPHIC TO COME: An illustrated graphic will show the variety of factors that contribute to local economic development.]

Traditional economic development tactics are under more scrutiny as stakeholders explore enhancing the assets that represent our region's competitive advantage.¹⁵¹ Strengthening the

¹⁴⁸ Southern Illinois University-Edwardsville, “Illinois Basic Economic Development Course,” <http://www.bedcillinois.com/about-us.html>.

¹⁴⁹ Nathan M. Jensen, “Job creation and firm-specific location incentives,” *Journal for Public Policy* 37,1 (2017).

¹⁵⁰ Robert G. Lynch, *Rethinking Growth Strategies: How State and Local Taxes and Services Affect Economic Development*, 2004, Washington, D.C.: Economic Policy Institute, https://www.epi.org/publication/books_rethinking_growth/.

¹⁵¹ Chicago Metropolitan Agency for Planning report, “Examination of Local Economic Development Incentives in Northeastern Illinois,” 2013, <http://www.cmap.illinois.gov/economy/tax-policy/economic-development-incentives>.



state and region’s human capital, infrastructure, fiscal conditions, and regulatory or tax systems could provide broader benefits to our business environment and resilience.

Performance-based approaches can help make the best use of limited resources by using data and stakeholder feedback to improve decision making. However, the State of Illinois and many local governments provide incentives without adequately monitoring their performance relative to planning and economic goals. Moreover, governments often structure these incentives as tax expenditures -- special exclusions, exemptions, deductions, or credits that may appear to lower tax revenues rather than increase spending. As a result, incentives often fall outside the scrutiny of a regular appropriations or budgeting process, where governments can otherwise weigh trade-offs and make transparent decisions to extend, improve, or terminate a particular incentive.

The state and local governments should prioritize public investments toward policies and programs that contribute meaningfully to the region’s economic competitiveness. Communities can make development decisions and investments that support regional and local goals, and research provides further insight into targeting how, where, and when to apply incentives effectively. Such instances may include projects that increase higher-wage employment, reinvest in infill sites, leverage existing infrastructure assets, remediate brownfields, or encourage mixed-use development.¹⁵² Improving the use of economic development incentives will require the State of Illinois to take a stronger leadership role in aligning resources to ensure strategic planning and rigorous analysis.

The following describes strategies and associated actions to implement this recommendation.

Promulgate stronger standards for transparency and accountability of economic development incentives

Proper evaluation of any program relies on two essential components: clear, relevant, ascertainable data, and internal procedures to assess outcomes and make decisions. The transparency of data and information on economic development incentives varies across metropolitan Chicago. Public agencies collect and publish a significant amount of non-proprietary information regarding incentives, but these data systems are often inadequate to determine an investment's effectiveness. In particular, disclosure standards can differ by the unit of government and the type of incentive, leaving information too fragmented or inconsistent to determine the total incentives going to a project. Regularly evaluating and publishing incentive data allows communities to make prioritized investments in their economic growth and long-term sustainability. Rather than extending incentives into perpetuity, the State of Illinois and local governments should pursue performance-based

Chicago Metropolitan Agency for Planning ON TO 2050 strategy paper, “Tax Policies and Land Use Trends,” 2017, <http://www.cmap.illinois.gov/onto2050/strategy-papers/tax-policy-land-use>.

¹⁵² Chicago Metropolitan Agency for Planning, *Fiscal and Economic Impact Analysis of Local Development Decisions*, 2014, <http://www.cmap.illinois.gov/documents/10180/82875/Fiscal%20Econ%20Impacts%20Dev%20FINAL.pdf/6fc7ed1c-aba7-4d6a-a057-8d251aa7fbdc>.



approaches to make decisions that extend, improve, or terminate incentives based on rigorous analysis. Such analysis should account for the incentive's full costs and benefits, progress in achieving its public purpose, and trade-offs relative to other government activities.

The State of Illinois and local governments should require a regular audit of all tax abatements, diversions, and credits for economic development.

The State of Illinois and local governments should implement and maintain sunset provisions on all tax abatements, diversions, and credits for economic development, allowing periodic reevaluation.

The State of Illinois and local governments should make comprehensive data on incentives for economic development available and ensure that relevant, accurate, non-proprietary data can be reliably located, integrated, and analyzed.

Align incentives with local and regional goals, anticipated outcomes, and tradeoffs

Most businesses choose their locations based primarily on workforce, access to transportation, quality of life, business environment, and other assets, giving much less weight to tax incentives.¹⁵³ In light of limited public funds, state and local jurisdictions should provide incentives only when a business relocation or retention would substantively advance local and regional goals related to quality of life and economic development. As CMAP research has shown, best practices exist for how, where, and when to apply incentives for maximum public benefit.¹⁵⁴ ON TO 2050 recommends the targeted use of incentives for developments that support regional economic goals, such as increasing employment in traded clusters, reinvesting in infill sites, or encouraging mixed-use development near transit. This strategy also appears in the *Community* chapter.

Local governments should establish criteria to ensure that economic development incentives fit with local and regional economic goals. The policies should maximize broad benefits and minimize the use of incentives that are only for fiscal gain to the community.

CMAP and partners such as ULI and MPC should provide best practices and model economic development incentive policies for communities.

¹⁵³ Joseph M. Phillips and Ernest P. Goss, "The effect of state and local taxes on economic development: A meta-analysis." *Southern Economic Journal* (1995): 320-333. Grant Thornton, *The 10th Annual-Manufacturing Climates Study* (1989): Chicago: Grant Thornton.

¹⁵⁴ Chicago Metropolitan Agency for Planning, *Reorienting State and Regional Economic Development: Lessons Learned from National Examples*, 2014, <http://www.cmap.illinois.gov/documents/10180/229846/FY14-0061%20Economic%20Development%20Report.pdf/d5609fbc-5561-4ea9-a1c2-fb3dbbc8d74c>.



Local governments should proactively establish economic development agreements with neighboring communities to reduce intraregional competition via incentives, and reduce public costs.

The State of Illinois and local governments should enhance data on tax credits and incentives provided at all levels of government and consistently evaluate the expenditures and outcomes of incentive programs such as sales tax rebates, EDGE, TIF, property tax abatements, Enterprise Zones, and others.

The State of Illinois should incorporate regional priorities into its strategic economic development planning and provide only assistance or incentives that align with those priorities.

Expand data-driven approaches in the workforce and education systems

Given its slowed growth, metropolitan Chicago must capitalize on the full potential and productivity of its human capital by collaborating at the front lines of our complex adult education and training systems. Recent [demographic trends](#) suggest the region will face obstacles to sustain a diverse, adaptive, skilled workforce. As the region's economic progress has slowed in recent years, so has its population growth, gaining just 0.65 percent during 2010-16. Our labor force -- residents who are 16 years or older and either working or actively seeking work -- declined by approximately 52,000 workers between 2008-16 and is [aging rapidly](#).¹⁵⁵ Population growth is both a condition and a consequence of economic prosperity, as residents choose where to live based on their perceptions of economic opportunity and quality of life. Slow population growth can burden the regional economy with a narrower tax base, fewer job opportunities, and a smaller labor pool.

[GRAPHIC TO COME: An interactive graphic will provide information on job polarization in the Chicago region between 1980-2016.]

Because the global economy is changing at an accelerated scale, scope, and speed, our workforce and education systems must become more flexible and effective at building the region's workforce. As skill demands have shifted, higher levels of post-secondary training -- as well as additional training throughout a career -- have become necessary for individuals to succeed in the job market. Nearly half of Chicago residents age 25 and older (45.7 percent) had an Associate degree or higher in 2016, including more than 2.2 million residents with a Bachelor degree or higher.¹⁵⁶ Maintaining a skilled workforce can translate to improved economic

¹⁵⁵ Chicago Metropolitan Agency for Planning analysis of American Community Survey data, 1-year estimates in 2005-2016 for the Chicago-Naperville-Elgin metropolitan area.

¹⁵⁶ Chicago Metropolitan Agency for Planning analysis of U.S. Census Bureau data.



security for residents¹⁵⁷ and a competitive advantage for the region as a whole.¹⁵⁸ Educational attainment is one of many ON TO 2050 indicators -- like workforce participation and employment in science, technology, engineering, and mathematics fields -- that can be used to assess the how the region's labor market responds to economic shifts.

A key missing component in data-driven approaches is information on education and training programs that do not lead to an accredited degree. Providers are increasingly expected to shorten the time to credential, to give students flexibility to intersperse learning and earning, to meet the needs of a growing share of English language learners, and to balance the remedial education and skills training for employment today with the foundational knowledge for a longer-term career. Several non-traditional education strategies have already emerged as providers test new models to deliver learning and boost outcomes. Yet serious challenges exist to delivering these programs. For example, recent research has questioned the transferability and economic value of some sub-baccalaureate certificates.¹⁵⁹

In a more competitive economy, capturing opportunities for regional economic growth requires well-informed analysis, diligent forecasting, and responsiveness to shifts in the labor market. In a broad universe of education and workforce development programs, demand-driven strategies depend on having the systems in place to evaluate the economic outcomes of participants and to assess diverse program elements. On a programmatic scale, educators and training providers often lack the ability to gauge their programs' efficacy or long-term value because of data gaps on education and employment outcomes. On a regional scale, workforce funders often lack necessary information to align program elements and underused capacity of existing programs. Numerous state and local systems capture data consistent with reporting requirements under WIOA, a 2014 federal effort to support strategies that reflect changing economic conditions. But because these data systems remain disconnected, inconsistent across service providers, and incomplete, they often lack sufficient information to coordinate regional systems.

In many ways, the Chicago region has been a national leader in integrating workforce and education data. The Chicago Cook Workforce Partnership's [Career Connect](#) and [Illinois Longitudinal Data System](#) both combine information across numerous programs to improve services for residents, employers, and public and private workforce funders. These initiatives have provided a foundation for regional cooperation on WIOA implementation, emphasizing the central role that integrated data systems play in pursuing unified planning, partnership

¹⁵⁷ Chicago Metropolitan Agency for Planning analysis of U.S. Bureau of Labor Statistics data, https://www.bls.gov/emp/ep_chart_001.htm.

¹⁵⁸ Edward Glaeser, Giacomo Ponzetto, and Kristina Tobio, "Cities, Skills, and Regional Change," NBER Working Paper 16934 (National Bureau of Economic Research, 2011), <http://www.nber.org/papers/w16934.pdf>.

¹⁵⁹ Veronica Minaya and Judith Scott-Clayton, "Labor Market Trajectories for Community College Graduates: New Evidence Spanning the Great Recession. A CAPSEE Working Paper," (Center for Analysis of Postsecondary Education and Employment, 2017).



development, and sustainable funding.¹⁶⁰ Such tools are especially important given a renewed national focus on evidence that workforce investments properly serve populations who face barriers to accessing or sustaining employment.

The following describes strategies and associated actions to implement this recommendation.

Develop and improve integrated workforce and education data systems

Improved information and data systems would enable regional actors to further meet the shifting demands on our adult education and training systems. With ongoing implementation of WIOA, stakeholders have mechanisms to test and scale new practices based on demand-driven strategies and industry engagement. Appropriate data and analysis can help refocus educational and training programs around shared goals, illuminate additional strategies for inclusive growth, and demonstrate economic outcomes across approaches or geographies. For example, good data -- disaggregated by race, gender, income, or neighborhood -- can reveal the economic conditions that different communities face and their barriers to achieving upward mobility. By connecting existing datasets, educators and training providers would enhance their ability to adjust programming and curricula in response to local and regional needs. Enhanced information and data systems are also necessary to pursue other regional strategies, such as rationalizing and coordinating specific educational programs across multiple providers. In pursuing these goals, CMAP and partners should emphasize the need for relevant and accurate data that can be reliably located, integrated, and analyzed.

State and local policy makers -- in partnership with workforce funders -- should expand integrated data systems and provide better data by building on lessons learned from development of the Illinois Longitudinal Data System and Chicago Cook Workforce Partnership's Career Connect.

Federal, state, and local policy makers -- in partnership with workforce funders -- should invest in the development, integration, and availability of longitudinal workforce and education data that best informs public policy.

Education and training providers should identify appropriate opportunities to address gaps, scale cooperation, and leverage data to inform programming and decision making.

State and local policy makers -- in partnership with workforce funders -- should provide the data that education and training providers require to connect their programs to business performance and participant outcomes. Integrated data systems should support metrics like time to job placement, speed to job promotion, length of continued employment, cost of recruitment and training, or employer productivity and quality outcomes.

¹⁶⁰ David Bradley, *The workforce Innovation and Opportunity Act and the One-Stop Delivery System*, Congressional Research Service Reports No. R44252 (Congressional Research Service, 2015).



Government, business and civic leaders, and other regional actors should develop and implement a shared vision for inclusive growth in northeastern Illinois, as well as define key metrics to track regional progress toward inclusive growth goals.

Maintain adequate information on programs for sub-baccalaureate credentials and adult basic education

Sub-baccalaureate credentials and adult basic education -- including short-term credential, licensure, high school equivalency, and certification programs -- make up a substantial and growing share of enrollment at metropolitan Chicago's community colleges. These new models of education may provide more flexible and affordable options than traditional degree programs. However, sub-baccalaureate programs are not uniformly valuable for workers or employers. Because some providers are not subject to traditional accrediting agencies, decision-makers do not have generally accepted standards or integrated data to gauge the quality of non-traditional and non-credit programs. There is a growing recognition in our region regarding the full breadth of training, in-demand skills, and meaningful work experience required to build long-term employability. Many sub-baccalaureate programs can play an important role in connecting residents to pathways for upward mobility. Their topics and structures may need to be further rationalized or enhanced based on the needs of growing industries and the economic outcomes of students. Many education and training providers are already adjusting their policies and curricula to reflect best practices for such programs. Improved information about program characteristics, competencies, and outcomes can also help potential students make a confident choice about what programs to pursue.



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The Chicago Metropolitan Agency for Planning (CMAP) is our region's comprehensive planning organization. The agency and its partners are developing ON TO 2050, a new comprehensive regional plan to help the seven counties and 284 communities of northeastern Illinois implement strategies that address transportation, housing, economic development, open space, the environment, and other quality-of-life issues.

ON TO 2050 is scheduled for adoption in October 2018.